

AMENDMENT TO THE CLAIMS

In the Claims:

Please **CANCEL** claim 19;

Please **AMEND** claims 1, 4, 7-9, 14 and 20; and

Please **ADD** new claims 21-22 as follows.

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently Amended) A Schottky barrier diode, comprising:
an active area;
a guard ring that is one of disjointed, a non-closed loop, and missing a portion in at least one dimension;
at least one separation region bounding the active area; and
an electrode formed in the active area to form a Schottky junction, wherein the at least one separation region reduces parasitic capacitance about the Schottky junction.
2. (Original) The Schottky barrier diode according to claim 1, wherein the electrode comprises a silicide.
3. (Original) The Schottky barrier diode according to claim 1, wherein the at least one separation region is a dielectric material selected from a group consisting of an oxide, a polymer, a glass, and a nitride.

4. (Currently Amended) The Schottky barrier diode according to claim 1, wherein ~~[[a]]~~ the portion of ~~[[a]]~~ the guard ring is removed from about the active area.

5. (Original) The Schottky barrier diode according to claim 1, wherein the at least one separation region bounds the active area in one dimension.

6. (Original) The Schottky barrier diode according to claim 1, wherein the at least one separation region comprises a plurality of separation regions, and where the plurality of separation regions bound the active area in two dimensions.

7. (Currently Amended) The Schottky barrier diode according to claim 1, wherein the at least one separation region ~~fully~~ partially surrounds the active region, ~~thereby eliminating a guard ring.~~

8. (Currently Amended) The Schottky barrier diode according to claim 1, wherein the Schottky junction has edges spaced away from the at least one separation region bounding the active area.

9. (Currently Amended) A Schottky barrier diode, comprising:
a semiconductor substrate;
at least one separation region bounding an active area formed on the semiconductor substrate;
a portion of a guard ring on the substrate; and

an electrode formed on a surface of the semiconductor substrate in the active area to form a Schottky junction, wherein the at least one separation region reduces parasitic capacitance about the Schottky junction, and the at least one separation region is substantially formed in the active region to eliminate ~~other portions~~ at least one portion of the guard ring at the portion where the at least one separation region is located.

10. (Original) The Schottky barrier diode according to claim 9, wherein the at least one separation region is a dielectric material selected from a group consisting of an oxide, a polymer, a glass, and a nitride.

11. (Original) The Schottky barrier diode according to claim 9, wherein the at least one separation region bounds the active area of the Schottky junction in one dimension.

12. (Original) The Schottky barrier diode according to claim 9, wherein the at least one separation region comprises a plurality of separation regions, and the plurality of separation regions bound the active area of the Schottky junction in two dimensions.

13. (Original) The Schottky barrier diode according to claim 9, wherein the Schottky junction has edges spaced away from the separation region bounding the active area.

14. (Currently Amended) A process for forming a Schottky barrier diode, comprising the steps of:

forming an active area in a substrate;

forming an electrode on the substrate in the active area to form a Schottky junction;

forming a guard ring that is one of disjointed, a non-closed ring, and missing a portion in at least one dimension; and

forming at least one separation region on the substrate where the at least one separation region is bounded on one side by the active area, wherein the at least one separation region reduces parasitic capacitance about the Schottky junction.

15. (Original) The method according to claim 14, wherein the electrode is formed with a silicide.

16. (Original) The method according to claim 14, wherein the at least one separation region is formed with a dielectric material selected from a group consisting of an oxide, a polymer, a glass, and a nitride.

17. (Original) The method according to claim 14, wherein the at least one separation region is formed to bound the active area of the Schottky junction in one dimension.

18. (Original) The method according to claim 14, wherein forming the at least one separation region comprises forming a plurality of separation regions and the plurality of separation regions bound the active area of the Schottky junction in two dimensions.

Claim 19. (Canceled).

20. (Currently Amended) The method according to claim 14, wherein the Schottky junction is formed to have edges spaced away the at least one separation region bounding the active area.

21. (New) The method according to claim 14, wherein the at least one separation region comprises two spaced apart separation regions.

22. (New) The method according to claim 14, wherein the at least one separation region comprises a U-shaped separation region.